

APPENDIX B – JOBS AND CONSTRUCTION SCHEDULE

The following section provides detailed schedules for the Memorial Bridge and Sarah Mildred Long Bridge project, as well as the Market Street Marine Terminal project. In addition, a discussion of the direct jobs generated by the improvements to the bridges and main wharf is included.

JOB CREATION BY PROJECT

Memorial Bridge and Sarah Mildred Long Rehabilitation – Quarterly Job Estimates

The Council of Economic Advisors provides an estimate of one job created or saved per \$92,136 of government spending from ARRA. Using the CEA method and assuming an overall project expenditure of \$150 million, it is estimated that 1,628 jobs will be created by the construction investment in the bridges rehabilitated by this project.

Direct on-site labor associated with the Memorial Bridge is projected to total 198 employees. Table 1 breaks down these labor requirements by construction element. Most of these employees are directly related to the construction work of the bridge or are involved in the engineering and architectural industries. Additional direct off-site jobs to subcontractors and suppliers of steel, concrete, and electrical and mechanical equipment for the lift bridges are estimated to add another 61 jobs over the course of the project with significant potential for indirect and induced multiplier effects.

Table 1 – Memorial Bridge Rehabilitation Direct Jobs

Memorial Bridge	Direct Jobs
Scott Avenue Bridge	7
Fixed Truss Deck Replacement	7
Kittery Approach Spans	7
Fixed Span Structural Repairs	16
Control and Plaques	16
Float-Out Prep and Float-Out	16
Lift Span Mechanical Work	16
Tower Rehabilitation	16
Fabricate and Assemble Lift Span Offsite	20
Paint Fixed Spans	9
Paint Towers	9
Float-In	16

Electrical Work	6
Road Work	37
Total	198

In terms of direct on-site quarterly job creation, the number of jobs per quarter will vary, depending on what element of the construction is being completed (see project schedule below). For example, 93 employees will be working directly on the bridge rehabilitation in the third quarter of 2011. During this quarter, several construction activities requiring numerous employees will be happening simultaneously. Quarterly job creation estimates are: 23 jobs in Quarters 2 and 3 of 2010; 43 jobs in Q4 of 2010; 36 jobs in Q1 of 2011; 89 jobs in Q2 of 2011; 93 jobs in Q3 of 2011; 58 jobs in Q4 of 2011; 15 jobs in Q1 of 2012; 31 jobs in Q2 of 2012; and 38 jobs in Q3 of 2012.

Similarly, direct on-site labor associated with the Sarah Mildred Long Bridge totals approximately 160 jobs. Most of these jobs are directly related to the construction work of the bridge or are involved in the engineering and architectural industries.

Although creation of these jobs will be delayed until the Memorial Bridge rehabilitation is completed, it is important to note that the jobs created for the Sarah Mildred Long Bridge reconstruction will extend the economic recovery of the region that was initiated by the TIGER Grant funds for the Memorial Bridge.

Market Street Marine Terminal Wharf Rehabilitation and Expansion Project -- Quarterly Job Estimates

The Council of Economic Advisors offers guidance on estimating the number of jobs associated with a government funded transportation project. This guidance provides an estimate of one job created or saved per \$92,136 of government spending from ARRA. Using the CEA method and assuming an overall project expenditure of \$12 million, 130 jobs will be created by the construction investment in the wharf, according to this methodology.

Based on the project schedule and capital budget for the main wharf improvement, the Market Street Marine Terminal project will involve 67 direct on-site employees to complete the effort. Table 2 provides the direct on-site jobs created.

Table 2 – Market Street Marine Terminal Rehabilitation and Expansion Direct Jobs

Market Street Marine Terminal	Direct Jobs
Pile Drivers	13
Operating Engineers	10
Carpenters	8

Laborers	12
Ironworkers	5
Electricians	3
Superintendents	4
Field Engineers	4
Surveyors	3
Project Managers	3
Coffee Wagon	2
TOTAL	67

These direct on-site jobs are only those associated specifically with the construction elements of the wharf improvements. They do not include the jobs that are created when funds are spent on non-labor items such as materials and equipment and other sub-contractors, which are estimated to provide another 61 direct jobs nationally for a total of 128 direct jobs for the port improvement project.

Quarterly direct on-site jobs will vary over the course of project construction but are anticipated to average at least 57 employees from April 2010 through mid-September 2011. Specifically, quarterly job creation estimates are: 43 jobs in Q2 of 2010; 64 jobs in Q3 and Q4 of 2010; 64 jobs in Q1 of 2011; 67 jobs in Q2 of 2011; and 40 jobs in Q3 of 2011.

CONSTRUCTION SCHEDULE

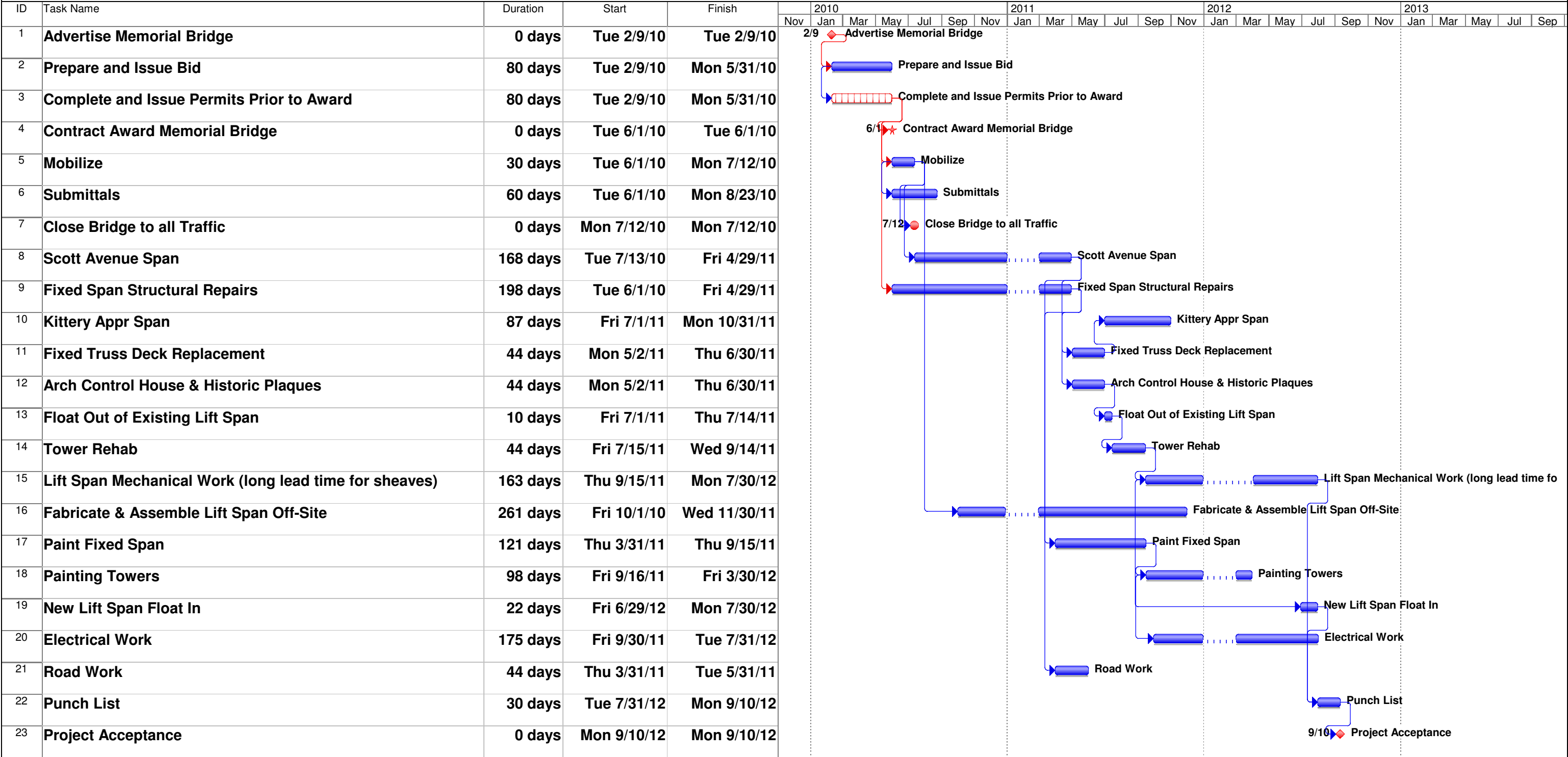
The following are construction schedules for each of the three projects discussed in this application:

- Rehabilitation of historic Memorial Bridge (National Register eligible, national level of significance);
- Rehabilitation of historic Sarah Mildred Long Bridge (National Register eligible, national level of significance); and;
- Rehabilitation and expansion of the Market Street Marine Terminal's main wharf.



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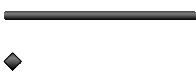
Proposed Memorial Bridge Schedule



Task
Split



Progress
Milestone



Summary
Project Summary



External Tasks
External Milestone



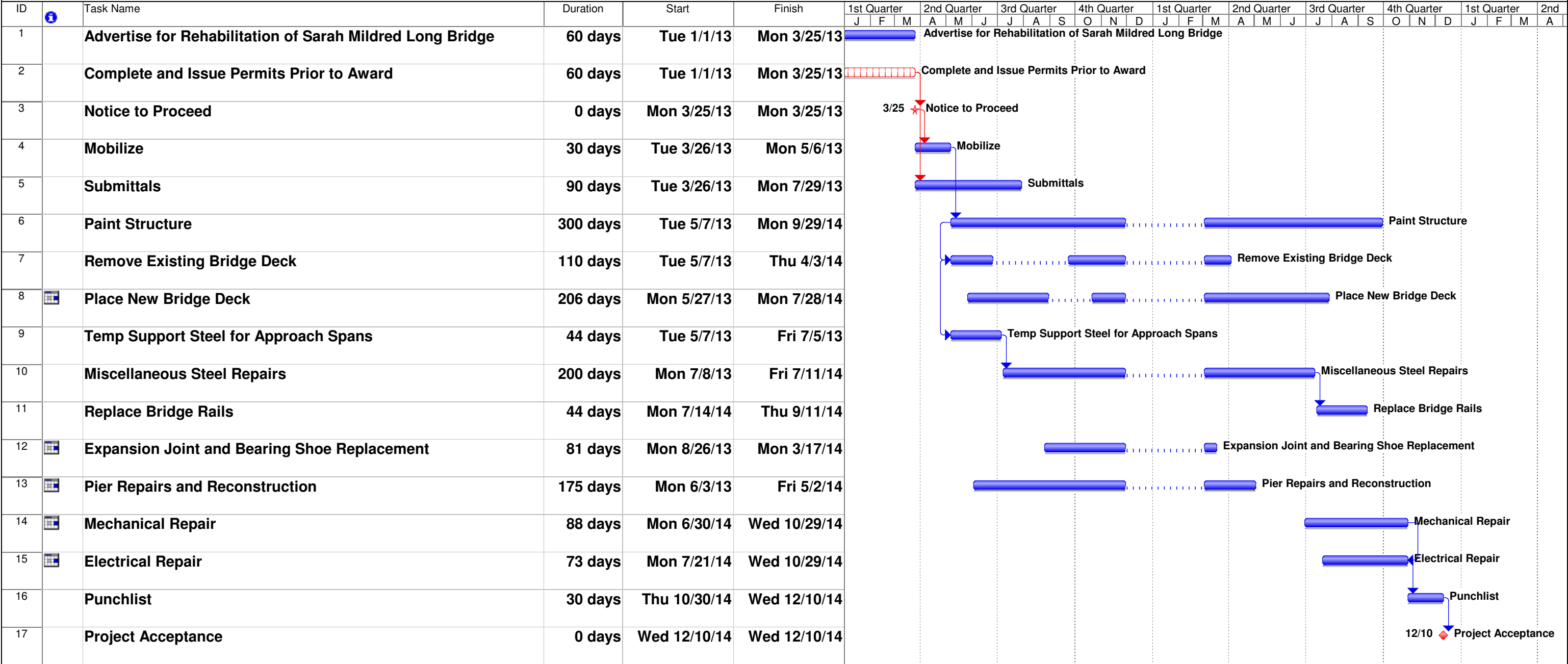
Deadline





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Proposed Sarah Mildred Long Bridge Schedule



Task

Milestone

Rolled Up Task

Rolled Up Milestone

Progress

Summary

Split

Project Summary

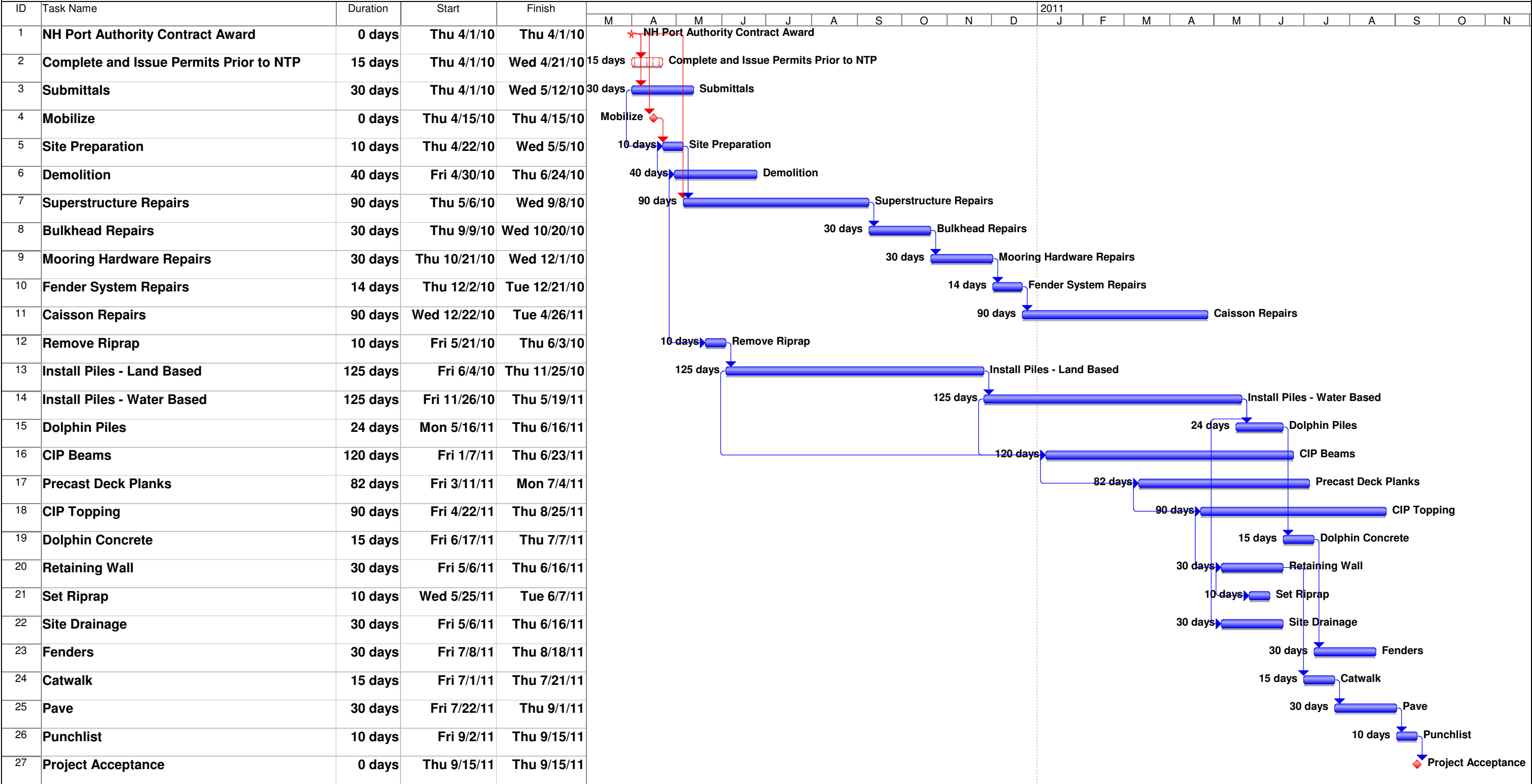
Deadline

Group By Summary



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Proposed New Hampshire Port Authority Pier Construction Schedule



Task Milestone Rolled Up Task Rolled Up Progress External Tasks Group By Summary Progress Summary Rolled Up Milestone Split Project Summary Deadline